MDV / BDV / MDE / BDE series



intarPACK refrigeration centrals

Self-contained air-cooled refrigeration centrals, designed for indoor or outdoor installation, with minimum space needs.

intarPACK centrals range covers compressor capacity from 4 to 60 HP at positive and negative temperature, in two different constructions:

intarPACK centrifugal

intarPACK centrifugal air-cooled centrals have been designed for indoor installation at an engine room. They feature medium pressure centrifugal motor-fans to duct outdoors the hot condensing air flow.

intarPACK axial

intarPACK axial air-cooled centrals have been developed for outdoor installation. Each model has been designed to operate under extreme ambient conditions, featuring acoustic insulated components for lower noise level.

- High power in small place.
- Tropicalised design for ambient temperature up to 45 °C.
- Rack of hermetic reciprocating or scroll compressors with noise insulation.
- Minimum maintenance needs, with simple access through removable panels.











Description Self-contained air-cooled refrigeration centrals, from 1 to 3 compressors, for positive and negative temperature applications, featuring control board and electronic regulation (depending on the version) with control of condensing temperature.

Features

R-404A refrigerant.

- Hermetic reciprocating or scroll compressors, noise insulated, with discharge muffler (for reciprocating compressor models), mounted on shock absorbers, internal klixon and crankcase heater.
- Condenser coil made in copper pipes and aluminium fins.
- · Medium-pressure centrifugal motor-fans for vertical or horizontal air discharge for a ducted outlet of condensing hot air.
- Proportional control of condensation temperature by fan speed control.
- Refrigeration circuit equipped with high and low pressure switches, ceramic dehydratant filter, liquid receiver and sight glass.
- Full control and power panel, with differential switch for each compressor (in 2 or more compressors units) and for each motor-fan (in 2 motor-fans units), MCB switch for compressor/s and motor-fan/s, and electronic regulation (depending on the version).

As an option

VRC system for cooling capacity modulation.

- Oil separator (already included for 2 scroll compressors negative temperature units).
- Anti-corrosion coil coating.
- Back-flow damper in fan outlet.
- Protection system for voltage drop and phase failure.

Applications intarPACK centrifugal air-cooled centrals have been designed to centralize the cooling production of a set of evaporating units.

They have been developed to be installed indoors at an engine room and extracting outdoors the condensation hot air through ducts.



MDV-CVF and BDV-CVF version (featuring cooling capacity modulation)

intarPACK centrifugal air-cooled centrals can be equipped with the VRC system (Variable Refrigerant Capacity),, which adapts the refrigerant flow to the demand of the evaporating units, keeping constant the pressure in suction line.

VRC system is composed by a set of pressure and temperature regulation valves able to progressively change compressor cooling capacity from 100% to 10% of its nominal capacity, while reducing the absorbed electrical power.





intarPACK

Description

Air-cooled refrigeration centrals, in a low-noise construction, built in a galvanised steel shell with polyester coating, designed for outdoor installation.

- Features
- 400V-III-50Hz power supply.
- R-404A refrigerant.
- Rack of hermetic reciprocating or scroll compressors, with noise insulation, service valves, discharge muffler (for reciprocating compressor models), mounted on shock absorbers, with internal klixon and crankcase heater.
- U-shaped large area ondensing coil made in copper pipes and aluminium fins, tropicalised for ambient temperature up to 45 °C.
- Low-speed electronic axial motor-fans (except for series 1) of low energy consumption at variable speed, with internal
 protection, mounted on nozzles, dynamically balanced blades and external protection grille.
- Refrigeration circuit with single or double suction line, made in copper pipes, equipped with HP and LP switches, service valves, safety valves, liquid receiver, dehydratant filter and sight glass.
- Full control and power panel, with differential switch for each compressor(for two or more than two compressors units) and for each motor-fan (for two motor-fans units), thermal and MCB switches for compressor/s and motor-fan/s.
- 4 power step electronic regulation, with one or two suction temperature set points, high and low pressure transducers, proportional control of condensing pressure and digital control keyboard.
- As an option
- Oil separator (already included for negative temperature units with 2 scroll compressors or 3 compressors).
- Anticorrosion coil coating.
- Module for external communication through ModBus protocol and RS485 connection.
- Brazzed plates heat exchanger for condensation heat recovery and hot water production.
- Protection system for voltage drop and phase failure.
- Applications

intarPACK axial air-cooled centrals are designed to give service to a set of evaporating units and other applications at positive and/or negative temperature:

Installation of a set of evaporating units with common liquid line and single or double suction line for two different evaporating temperatures, and compressors cooling capacity control.



U-shaped tropicalised condensing coil

intarPACK axial centrals feature an U-shaped large area condensing coil to guarantee the proper operation under high ambient temperature.



Efficient, proportional and low-noise condensation

Low-noise condensing motor-fans operating at 900 rpm, with variable speed function, preserve condensation pressure under low ambient temperature while they reduce sound pressure level.

